Appl. No. 10/776,319 Amdt. Dated January 18, 2005

Reply to Office Action of October 18, 2004

IN THE SPECIFICATION:

Please enter the following amendment to page 14, lines 18-22:

The satellite acquisition information calculator 350 calculates a code phase using a pseudo range received from the pseudo range calculator 320. The pseudo satellite velocity calculator 330 calculates Doppler shift information using pseudo velocity information received from the pseudo velocity calculator 330 340, and transmits the calculated Doppler shift information to the MS 100.

Please enter the following amendment to page 18, line 24 through page 19, line 9:

If a real range RRsv_gpsrv|Tc between the satellite and the reference station GPS receiver 130 at the time Tc [[in]] and a real range RRsv_bts|Ta between the satellite and the MS 100 at the time Ta is substituted for a pseudo range PRsv_gpsrv|Tc between the reference station GPS receiver 130 and the satellite at the time Tc, the pseudo range PRsv_bts|Ta at the time Ta can be acquired. The time difference between Ta and Tc is less than about 6 seconds even though it contains a processing time and a network delay time, and the satellite's movement observed on earth within 6 seconds is considered to be a very small amount of movement, such that the pseudo range PRsv_bts|Ta at the time Ta can be acquired using the aforementioned calculation method. In the case where the satellite signal originated from the satellite orbiting at an altitude of 2000 km is propagated to the reference station GPS receiver 130 and the MS 100, it can be assumed that the satellite signal passes over almost the same propagation space. The pseudo range PRsv_bts|Ta between the satellite and the MS 100 can be represented by the following Equation 12:

-2-